Automated Inventory System

Barcode User Guide

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Contents

Section 1

Barcode Equipment

Using barcodes with AIS is a simple process. With the properly configured equipment, you should be able to start scanning right out of the box. AIS does not require the acquisition of any particular brand of equipment or the vendor to obtain the equipment from. You will need to follow your procurement procedures and work with your selected vendor.

For your reference, the following scanning equipment is what is being used in the AIS application development center. The vendor where the equipment was procured has been included. The recommended model of any scanner should use a USB port connection and be comparable to the models shown below. A USB connection should mean that you just plug it into your computer and you are ready to start scanning!

Vendor: http://www.posworld.com/index.html

Hand Held Scanner model	Table Top Scanner model
www.posworld.com/symbol-bar-code-scanner-ls-2200.html	www.posworld.com/symbol-bar-code-scanner-ls-9200.html
Symbol LS2208, Black, Stand, Universal Serial Bus (USB) Laser Barcode Scanner Kit	**Symbol LS9208, Black, Stand, Universal Serial Bus (USB)**
$153.00	$265.00

In-counter Scanner model	
http://www.posworld.com/msserhorinla.html	
MS7600 Series Horizon In-Counter Laser Barcode Scanners with USB	
$421.00	

Scanning Test: The scanner you purchase must be able to scan a UPC-A style code just the same as if you type the barcode on the keyboard. The following example depicts what your scan would look like if you tested it onto a word document:

Scanned 3 times with a scanner set to not include a code to indicate the equivalent of pressing the enter key after a scan:

049000024685049000024685049000024685

Scanned 3 times with a scanner set to include the code to indicate the equivalent of the enter key being pressed after a scan:

049000024685
049000024685
049000024685

The AIS software has been configured to use either method. If your scanner is not configured equivalent to either style shown here, you will be responsible for getting it configured that way. AIS does not provide scanner configuration support.

Section 2

UPC Defined

"UPC" stands for **Universal Product Code**. UPC bar codes were originally created to help grocery stores speed up the checkout process and keep better track of inventory, but the system quickly spread to all other retail products because it was so successful.

UPCs originate with a company called the Uniform Code Council (UCC). A manufacturer applies to the UCC for permission to enter the UPC system. The manufacturer pays an annual fee for the privilege. In return, the UCC issues the manufacturer a six-digit **manufacturer identification number** and provides guidelines on how to use it. You can see the manufacturer identification number in any standard 12-digit UPC code, like this one You can see that the UPC symbol printed on a package has two parts:

- The machine-readable bar code
- The human-readable 12-digit UPC number

The manufacturer identification number is the first six digits of the UPC number -- 639382. The next five digits -- 00039 -- are the **item number**. A person employed by the manufacturer, called the **UPC coordinator**, is responsible for assigning item numbers to products, making sure the same code is not used on more than one product, retiring codes as products are removed from the product line, etc. In general, every item the manufacturer sells, as well as every size package and every repackaging of the item, needs a different item code. So a 12-ounce can of Coke needs a different item number than a 16-ounce bottle of Coke, as does a 6-pack of 12-ounce cans, a 12-pack, a 24-can case, and so on. It is the job of the UPC coordinator to keep all of these numbers straight!

The last digit of the UPC code is called a **check digit**. This digit lets the scanner determine if it scanned the number correctly or not. Here is how the check digit is calculated for the other 11 digits, using the code 63938200039:

1. Add together the value of all of the digits in odd positions (digits 1, 3, 5, 7, 9 and 11).
   6 + 9 + 8 + 0 + 0 + 9 = 32
2. Multiply that number by 3.
   32 * 3 = 96
3. Add together the value of all of the digits in even positions (digits 2, 4, 6, 8 and 10).
   3 + 3 + 2 + 0 + 3 = 11
4. Add this sum to the value in step 2.
   96 + 11 = 107
5. Take the number in Step 4. To create the check digit, determine the number that, when added to the number in step 4, is a multiple of 10.
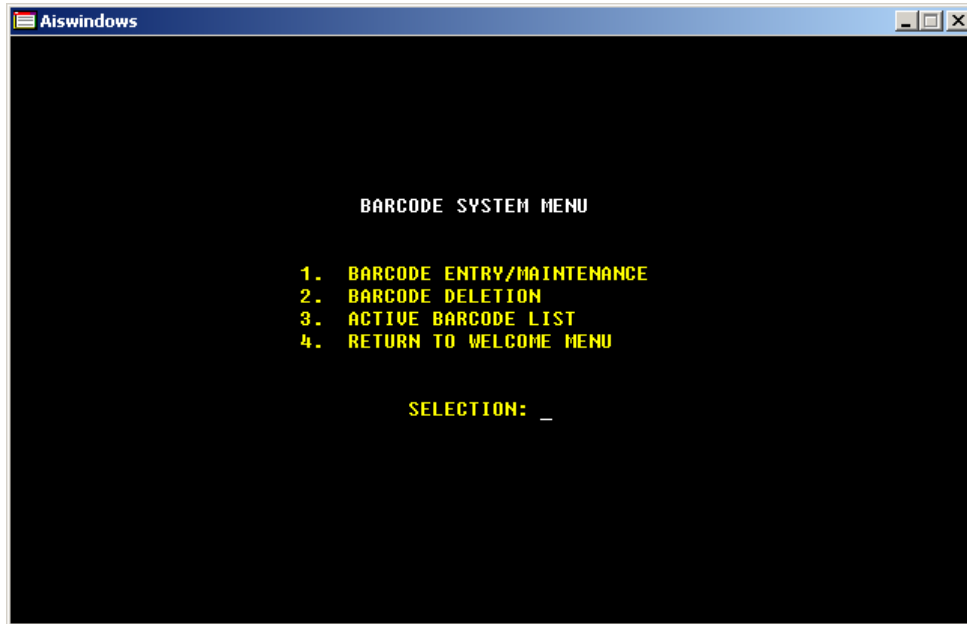   **107 + 3 = 110**

   The check digit is therefore **3**.

Each time the scanner scans an item, it performs this calculation. If the check digit it calculates is different from the check digit it reads, the scanner knows that something went wrong and the item needs to be rescanned.
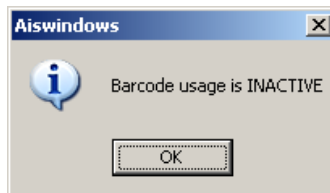
Section 3

Barcode System Menu

The Barcode System Menu is located at menu choice **6 - Barcode System Menu** in the **Inventory System Menu**. The barcode system provides the ability to add, modify or delete barcodes. It also provides a listing for the barcodes currently in the system.

By default the Barcode System is set to "off" in AIS. If you access the Barcode System Menu and receive the following message you will need to activate barcode use:

Activating barcode use will set all users of AIS to receive the barcode screen displays for issuance and adjust issuances. There are no settings by individual user. To activate barcode use in AIS follow these steps:

1. Start at the **Welcome Menu**
2. Select **4 – System Operations Menu**
3. Select **2 – User Operations Menu**
4. Select **1 – Bar Code Status Setting**
5. Press **F5** to change the status to "active"
6. Press **F3** to save the status selected

There is also an option to turn barcode scanning off, which places AIS into the manual entry for issuance of food items from the keyboard in the event that the scanning equipment fails and an

agency would rather type the food items in than to keep manual records. Using the same steps as listed above, substitute in step five **F1** to change the status to "inactive".

AISBarCode - Barcode Usage Status Setting	AISBarCode - Barcode Usage Status Setting
Barcode Usage Status Setting	Barcode Usage Status Setting
BARCODES are ACTIVE	BARCODES are INACTIVE
F1 - Change status to INACTIVE	
F3 - Save status as displayed	F3 - Save status as displayed
	F5 - Change status to ACTIVE

Barcode Entry/Maintenance

This program is used to enter barcodes and associate them with a commodity code. The barcode use within AIS only acts as a substitute during issuance for the FNS commodity code number. The number of barcodes that can be associated with a commodity code is unlimited. AIS does not distinguish inventory levels by barcodes. For example, if there were two brands of A119-Corn in inventory totaling 1,000 units, AIS will only report 1,000 units of A119-Corn and not that there were 300 of brand-A and 700 units of brand-B.

Example of a barcode scanned that is not already in the system:

AISBarCode - Enter Barcode value

Last Entry:

Barcode Value   025215556494

Commodity Code

Commodity Name

F1 - New Barcode   F3 - Exit

If the barcode is already in the system then the commodity code assigned to it will be displayed:
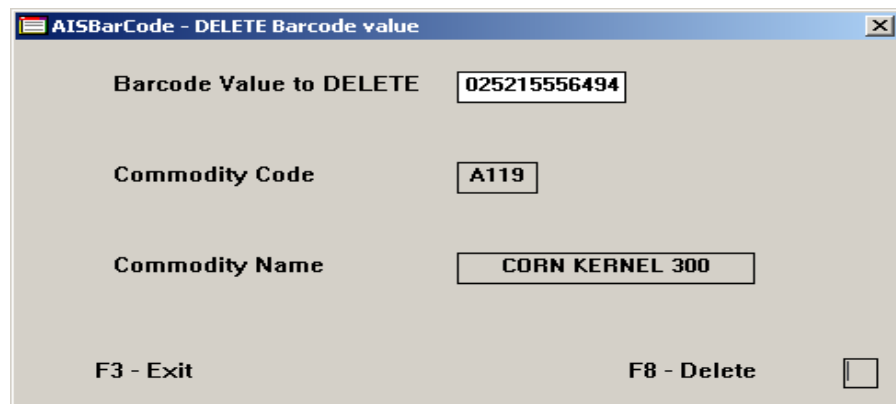
AISBarCode - Enter Barcode value

Last Entry:

Barcode Value   100119001193

Commodity Code   A119

Commodity Name   CORN KERNEL 300

F1 - New Barcode   F3 - Exit   F5 - Change CommodCode   F8 - Save

The deletion program simply removes a barcode by scanning or typing the barcode value in:

```
AISBarCode - DELETE Barcode value                              [x]

      Barcode Value to DELETE        025215556494

      Commodity Code                  A119

      Commodity Name                   CORN KERNEL 300


      F3 - Exit                               F8 - Delete      [ ]
```

NOTE – There is no harm to AIS to leave barcodes in the system. The benefit to deleting a barcode would be if an invalid barcode was entered into the system and no commodity code could be assigned to it. Another benefit to deleting barcodes for obsolete products would be to minimize the amount of barcodes that will print on a listing.

The active barcode list will print a listing of all barcodes available in the system for use including the commodity code they are associated with:

```
AISBarCode - Active Barcode List                              [x]
                    Active Barcode List


              F1 - Sort by BARCODE


              F3 - Exit


              F5 - Sort by COMMODITY CODE


              F7 - Sort by FOOD GROUP


                                                        [ ]
```

AIS Barcode Issuance Scanning

AISBarCode - Issance

| ID: | 111111111 | Head of Household Name: | 1   1 | Household Size: | 1 |

| Certified: | 10/2006 - 09/2007 | Last Issued: | 03/11/2007 | Current Issue Date: | 4 | 9 | 2007 |

Authorized Representative(s):

| JOEY | TOM | MARY |

BarCode Entered: [   ]   **Scan Quantity:** 1

FG	Available	Selected	Remaining	FG	Available	Selected	Remaining
FRUITS - VEGS.	18.00	.00	18.00	FARINA	1.00	.00	1.00
JUICES	3.00	.00	3.00	CHEESE	.00	.00	.00
DEHY POTATOES	1.00	.00	1.00	RICE/PASTA	4.00	.00	4.00
DRIED FRUIT	1.00	.00	1.00	HOT CEREAL	1.00	.00	1.00
VEGGIE BEANS	2.00	.00	2.00	CORNMEAL/FLOUR	2.00	.00	2.00
DRY BEANS	1.00	.00	1.00	DRY CEREAL	1.00	.00	1.00
EGG MIX	2.00	.00	2.00	BAKERY MIX	1.00	.00	1.00
MEATS/FISH	3.00	.00	3.00	SAUCES	1.00	.00	1.00
PEANUT PRODUCT	1.00	.00	1.00	SOUPS	2.00	.00	2.00
FATS/OILS	1.00	.00	1.00	EGG NOODLES	1.00	.00	1.00
SWEETENERS	1.00	.00	1.00	CRACKERS	1.00	.00	1.00
EVAP MILK	4.00	.00	4.00	BONUS	31.00	.00	31.00
DRY MILK	1.00	.00	1.00			F4 - DISPLAY SKIP STATUS	

Last 6 Scans:

F1 - CHANGE SCAN QUANTITY   F3 - EXIT   F5 - PRINT SCANS   F6 - VOID SCAN   F8 - SAVE

The issuance program displays all foods by group and totals of food available for the group by household size. The darkened fields on an issuance indicate that the items are skip items and are not available. Features with this program include the option to set the scan quantity per barcode scanned, to reverse a previous entry by performing a void scan, print a listing of the scans already made (the listing also shows all void scans) and is set to edit not only for maximum quantities and mixed food groups such as fruits-vegetables, but check for remaining inventory balances. Also included is the display of the authorized representatives for the household and the last 6 scans for ease of visual tracking of scanned items. To see what the skip items are and when they are next available, press **F4 - DISPLAY SKIP STATUS** and the following screen will display:

Skip Status

BarCode Skip List
for
| ABCDEFGHIJKLM | 123456789A123456789B |
as of
| 10/04/2006 |

Code	Commodity	Next Available
B367	BAKERY MIX	12/2006

F3 - EXIT   F8 - PRINT

By default the scan quantity is always set to one. Pressing `F1 - CHANGE SCAN QUANTITY` will allow the user to scan multiple items one time. For instance, if a client has 4 cans of corn instead of scanning all 4 cans once, the quantity can be changed `BarCode Entered:` [____] `Qty:` `4` and only one can scanned to record the issuance for that item. Once the quantity is selected the user needs to return to the scan mode by pressing: `F1 - SCAN BARCODE`

If an item is scanned erroneously or the client decides not to take the product after it has been scanned, pressing `F6 - VOID SCAN` will cause the scan fields to change to the void mode display which will cause any scan to subtract that item from issuance: `BarCode to VOID:` [____] `Qty:` `1` To exit the void mode without scanning press: `F6 - END VOID SCAN` If a food group item that is selected to the maximum amount is voided the field will change to the lighter color so that another product in that food group can be selected.

As items are scanned, the color scheme changes when a food group has been issued to the maximum available amount:

Selecting `F5 - PRINT SCANS` will provide an option to see a "temporary" printout of completed scan activity in the order that the scanning was performed or a view of items scanned by food group:

Click **Yes** to view scans by food group or **No** to obtain a printout of scans.

Printout of scans example:

```
                         Scanned Items by Barcode/Commodity Code              PAGE: 01
For: ABCDEFGHIJKLMN 123456789A123456789B        10/04/2006 as of 13:35
----------------------------------------------------------------------------

         1      B720       SHORTENING              200720007208
         1      B117       MILK EVAPORATED 24      200117001178
         1      B117       MILK EVAPORATED 24      200117001178
         1      B117       MILK EVAPORATED 24      200117001178
         1      B160       FARINA                  200160001606
         1      B425       MACARONI                200425004250
         1      B436       MAC N CHEESE            200436004362
         1      B510       RICE                    200510005100
         1      B160       FARINA                  200160001606   VOID
         1      B510       RICE                    200510005100   VOID
```

View scans by food group example:

Enter the 2 digit food group code to view from the display menu.

Pressing **F8 - SAVE** will save the issuance data entered and produce the invoice printout.

Adjust Issuance

FG	Available	Selected	Remaining	FG	Available	Selected	Remaining		Last 6 Scans:	
FRUITS - VEGS.	18.00	14.00	4.00	FARINA	1.00	1.00	.00	A446	PINEAPPLE	1
JUICES	3.00	.00	3.00	CHEESE	.00	.00	.00		100446004461	
DEHY POTATOES	1.00	.00	1.00	RICE/PASTA	4.00	.00	4.00	A057	MIXED VEGETABLES	1
DRIED FRUIT	1.00	.00	1.00	HOT CEREAL	1.00	.00	1.00		100057000579	
VEGGIE BEANS	2.00	.00	2.00	CORNMEAL/FLOUR	2.00	1.00	1.00	A057	MIXED VEGETABLES	1
DRY BEANS	1.00	.00	1.00	DRY CEREAL	1.00	.00	1.00		100057000579	
EGG MIX	2.00	.00	2.00	BAKERY MIX	1.00	1.00	.00	A057	MIXED VEGETABLES	1
MEATS/FISH	3.00	.00	3.00	SAUCES	1.00	1.00	.00		100057000579	
PEANUT PRODUCT	1.00	.00	1.00	SOUPS	2.00	.00	2.00			
FATS/OILS	1.00	1.00	.00	EGG NOODLES	1.00	.00	1.00	A057	MIXED VEGETABLES	1
SWEETENERS	1.00	.00	1.00	CRACKERS	1.00	.00	1.00		100057000579	
EVAP MILK	4.00	1.00	3.00	BONUS	31.00	.00	31.00	A057	MIXED VEGETABLES	1
DRY MILK	1.00	1.00	.00						100057000579	

ID: 111111111   Head of Household Name: 1   1   Household Size: 1
Certified: 10/2006 - 04/2007   Last Issued: 04/09/2007   HH Size at Issuance: 1

BarCode Entered: [ ]   Scan Quantity: 1

F2 - DISPLAY SKIP STATUS
F4 - PRINT PRIOR ISSUANCES

F1 - CHANGE SCAN QUANTITY   F3 - EXIT   F5 - PRINT SCANS   F6 - VOID SCAN   F8 - SAVE

The adjust issuance program functions exactly like the issuance program. The main difference is that it automatically defaults to the previous issuance date which must be either the current month or the previous month. AIS does not support future or more then one month prior issuances or adjustments. The adjust issuance program displays the amount of the food package that has already been selected. Any food group that is selected up to the maximum amount as well as any skip item is darkened. If a food group item that is selected to the maximum amount is voided the field will change to the lighter color so that another product in that food group can be selected.

To see what the skip items are and when they are next available, press F2 - DISPLAY SKIP STATUS and the following screen will display:

Skip Status

BarCode Skip List
for
1   1
as of
04/10/2007

Code	Commodity	Next Available
B060	CHEESE	5/2007
B666	VEGETABLE OIL	6/2007
B095	NFD MILK 25.6 OZ	6/2007
B160	FARINA	6/2007
B367	BAKERY MIX	8/2007

F3 - EXIT   F8 - PRINT

Pressing `F4 - PRINT PRIOR ISSUANCES` will create a printout of the items that have already been issued to the household:

```
                       ISSUANCES FOR ISSUE MONTH: 09/2006

      ID                     Name                      HHSize              Page: 1
  111111111    ABCDEFGHIJKLMN 123456789A123456789        01

              Code                  Commodity             Amt
              A196              DEHY POTATOES               1
              A076              LT RED KIDNEY BEANS         1
              A570              EGG MIX                     1
              A610              BEEF W/NJ                   1
              B720              SHORTENING                  1
```